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50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Ga 05000323
AUTH.NAME AUTHOR AFFILIATION
SCHUYLER,J.D. Pacific Gas & Electric Co.
RECIP.NAME RECIPIENT AFFILIATION
MARTIN,J.B. Region 5, Office of Director

SUBJECT: Forwards response to NRC questions concerning allegations listed in SSER 21 re installation of Class I equipment on Class II matl in cable spreading room.

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PACIFIC GAS AND ELECTRIC COMPANY

PG&E

77 BEALE STREET, SAN FRANCISCO, CALIFORNIA 94106 TELEPHONE (415) 781-4211

February 7, 1984

PGandE Letter No: DCL-84-047

Mr. John B. Martin, Regional Administrator
U. S. Nuclear Regulatory Commission, Region V
1450 Maria Lane, Suite 210
Walnut Creek, CA 94596-5368

Re: Docket No. 50-275, OL-DPR-76
Docket No. 50-323
Diablo Canyon Units 1 and 2
Welding in the Cable Spreading Room

Dear Mr. Martin:

As a result of the recent NRC investigations into the allegations listed in SSER 21, the Staff has raised questions regarding the installation of class I equipment on class II material in the cable spreading room. The enclosure to this letter provides the PGandE response to these questions.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

J. O. Schuyler

by J. D. Shiffer

Enclosure

cc: T. W. Bishop
D. G. Eisenhut
G. W. Knighton
H. E. Schierling

DIST: PDR Jean Lee

B001
1/1

ENCLOSURE

USE OF NON-CLASS I MATERIAL TO SUPPORT
SAFETY-RELATED EQUIPMENT IN THE CABLE SPREADING ROOMS

Background

The NRC has requested additional information based on their review of the use of non-Class I steel to support safety-related equipment in the cable spreading rooms. The information requested is:

1. Show qualification for the materials and installation.
2. Explain why resolution of the problem has not been accomplished in a more timely manner.
3. Why wasn't the problem discovered by the IDVP or the ITP?
4. Address generic implications, including late identification of the issue as a nonconformance.

Resolution

The following discussion provides a response to each question.

1. Show qualification for the materials and installation.

The non-Class I steel beams used in this installation have been tested to determine chemical and physical properties. The steel was found to have ASTM A-36 properties as required by the design drawings. The beam installations and equipment attachments to the beams have been as-built. Calculations have been performed which show qualification of the as-built installation. Refer to Attachment 1 for details.

2. Explain why resolution of the problem has not been accomplished in a more timely manner.

On October 6, 1983, H.P. Foley Company identified to PGandE a concern regarding the adequacy of anchor bolt installations which fix the steel beams in place. This initial concern was broadened to include the issue of non-Class I material in Class I installations. Resolution has required preparation of additional as-built drawings, material removal for testing and analysis, and design reanalysis. Although resolution has taken approximately four months, when considering the complexity of the issue, we find the duration to closure to be reasonable.

3. Why wasn't the problem discovered by the Independent Design Verification Program (IDVP) or the Internal Technical Program (ITP)?

The IDVP was based on a sampling approach. This installation was not included in their sample. However, their review did identify a generic concern for adequacy of equipment supports. As a result of this generic concern, the equipment attached to the cable spreading room platforms was reviewed by the ITP. The welds from the equipment to the steel beams were found to require modification for structural reinforcement. In addition, the design of the cable spreading room platforms was reviewed by the ITP. The design of the

platform consisted of steel beams installed in a grid pattern fixed to the floor by closely spaced anchor bolts. A senior engineer reviewed this design and judged that margin exists in the design such that as-builting and detailed reanalysis was not warranted. The steel was specified as ASTM A-36, but no certification was required. Since A-36 is a standard commercial grade steel and no welding problems were apparent, the material was judged adequate. The review described above was completed prior to identification of the NRC questions.

Therefore, this installation was reviewed, weld modifications specified, and the remainder judged adequate by the Diablo Canyon Project. Subsequently, the more detailed January 30, 1984 structural analysis and material testing has confirmed the judgments made in the earlier review. Refer to Question 1 for details.

4. Address generic implications, including late identification of the issue as a nonconformance.

The unique nature of the steel-frame raised-floor configuration led to the acceptance of the design and material without the detailed type of as-builting and analysis that was performed for the other structures. This type of configuration exists only in the cable spreading rooms. All other platforms which support Class I equipment have been thoroughly analyzed. Therefore, this installation is not a generic issue. The Nonconformance Report (NCR) associated with this issue will be completed by February 17, 1984.

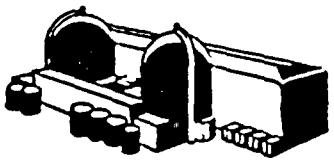
The Project has initiated a separate NCR to assess the adequacy of the steps taken in addressing timely identification of this issue as a nonconformance. This NCR will establish cause, investigate generic implications, determine corrective action to prevent recurrence, and review reportability.

ATTACHMENT 1

042507

INTEROFFICE MEMORANDUM

Diablo Canyon Project



PACIFIC GAS AND ELECTRIC COMPANY
BECHTEL POWER CORPORATION

To D. Rockwell/M. Leppke

From J. K. McCall

Of Civil Engineering - Unit 1

At 45/23/B35 Extension 8-1414

Date January 30, 1984

File No. 52.19

Subject Supports for Class I Electrical Panels in the Cable Spreading Room - El. 127 Unit 1

Reference: Minor Variation Report - MVR No. C-1338
Non-Conformance Report - NCR No. DC1-84-SC-N001

Engineering has evaluated the above referenced reports and following is our engineering disposition:

A. 10WF21 Supporting Beams

1. Structural Evaluation: Based on as-built information from the field and new panel loads furnished by Westinghouse, supporting beams are found to be structurally adequate when subjected to Hosgri/DDE earthquake.

2. Material: Our calculations are based on the material conforming to ASTM A-36 which requires a minimum yield strength of 36ksi. It has been confirmed that the material does meet the requirements of ASTM A-36 by the mechanical and chemical tests performed on coupons taken from the supporting beams. The test report will be available upon request.

   Based upon the above information, existing supporting beams are considered acceptable and, therefore, use as is. The portion of the beams where the coupons were taken shall be ground smooth to remove any irregularities and sharp notches. The cut out portion need not be welded back.

B. Concrete Expansion Anchors

Based on as-built information from the field and new panel loads furnished by Westinghouse, all expansion anchors are found to be structurally adequate when subjected to the Hosgri/DDE earthquake. The capacity of expansion anchors are based on the report "Use of Concrete Expansion Anchors at Diablo Canyon" contained in PGandE Letter No. DCL-84-031 which accounts for embedment and angularity. All existing expansion anchors are acceptable and therefore, use as is.

For your reference, the calculation number for the above is EPA-9, Rev. 2 and filed in 52.19.

If there are any questions, please call Ali Vanek at Ext. 8-5953.

J. K. McCALL

AVanek:slp

Response Required: No.

cc: HFriend
GHMoore
WHWhite
LERosetta
FRussell
FMorsy
NOShah
BSarkar
AVanek
KTawney

[MISC10020]